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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,584	10/24/2003	Baiyi Zhao	2002B130/2	1077
23455 7590 09/25/2008 EXXONMOBIL CHEMICAL COMPANY 5200 BAYWAY DRIVE P.O. BOX 2149 BAYTOWN, TX 77522-2149				
EXAMINER MCDONOUGH, JAMES E				
ART UNIT		PAPER NUMBER		
1793				
MAIL DATE		DELIVERY MODE		
09/25/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/693,584

**Applicant(s)**

ZHAO ET AL.

**Examiner**

JAMES E. MCDONOUGH

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 July 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-6 and 9-33 is/are pending in the application.  
4a) Of the above claim(s) 18-33 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 2-6 and 9-17 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 7/18/2008  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/18/08 has been entered.

### **New Rejections**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-6 and 12-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Buchwald et al. (USP 6,307,087).

Regarding claims 2 and 12-16

Buchwald teaches an improved catalyst made by reacting a metal precursor with novel ligand (abstract).

Buchwald teaches that the metal precursor could be  $\text{NiCl}_2[\text{P}(\text{C}_6\text{H}_5)]_2$  (column 32, lines 22-32), which would leave chlorines, reading on the limitation of X in the instant claims.

Buchwald teaches a ligand reading on the limitations of the instant claims in general structure 4, where certain embodiments include R1 and R2 are hydrogen (column 7, lines 5-45), reading on Y being biphenyl.

Regarding claims 3-6

Buchwald teaches these R groups (column 7, lines 40-45).

Regarding claim 17

This claim only further limits claim 16 when y is not equal to 0.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchwald (USP 6,307,087), as applied to claim 2 above, in further view of Nickias et al. (USP 5,994,255).

Although, Buchwald fails to teach that both X ligands are amide, alkoxide (claim 9), hydrocarbyl (claim 10) or allyl (claim 11), Buchwalds does teach the use of halogen ligands. However, because Kohlpaintner et al. (USP 5,777,087) which is incorporated fully into Buchwald by reference (see Buchwald column 89, lines 19-20) teaches that the X ligand, can be any ligand which can be bound to a metal (column 4, lines 8-36), and Nickias teaches that halo, hydrocarbyl, amide, hydrocarbyloxy, aminohydrocarbyl and allyl ligands can be substituted for one another and are seen as functional equivalents, it would have been prima facie obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Buchwald, by substituting the halogen ligands, for aminoalkyl, amide, alkoxy or allyl ligands, as suggested by Nickias, in view of the fact that Kohlpaintner teaches any ligand can be used, and any showing of unexpected results.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory

obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 2-6 and 9-17 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10, 12, 13, 15-20, 28-31 and 36-40 of copending Application No. 10/692,827. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reference does not exclude the use of palladium, however the metals that it teaches read on the instant invention.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### **Response to Arguments**

Applicants argue against the 103 rejection.

The withdrawal of this rejection in favor of a new rejection makes these arguments moot. However, it is noted that applicants have failed to show any criticality for the hydrocarbyl ligands and that the instant invention is directed towards a composition of matter and not a polymerization catalyst as argued. Further still it is noted that Buchwald teaches that catalyst such as his may be used for polymerization (column 1, lines 15-20).

Applicants argue against examiners previous arguments.

The previous arguments relate to the old rejections and the withdrawal of them makes this argument moot.

Applicants submit a declaration in an attempt to overcome the rejections.

The withdrawal of the rejections makes these arguments largely moot, however the ones still deemed permanent are responded to below.

Applicants argue opinion, however it is noted that opinion evidence is given little weight in a declaration.

Applicants argue with examples using palladium, however it is noted that neither the rejection nor the instant claims are directed towards palladium.

Applicants argue that it is noteworthy that the chemical abstracts only list 2 nickel complexes with phosphino amine ligands. It is not seen how this is relevant to patentability, as a lack of a CAS number does not in any way show that Buchwald did not have possession of the claimed subject matter.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES E. MCDONOUGH whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael A Marcheschi/  
Primary Examiner, Art Unit 1793

JEM 9/21/2008